REMARKS

Allowable Subject Matter:

Applicant thanks the Examiner for indicating that although claims 3 and 5 stand rejected under 35 U.S.C. § 112 (discussed below), these claims would be allowable if written to correct address the 35 U.S.C. § 112 issues.

Claim Rejections:

Claims 1-8 are all the claims pending in the application, and currently all of the claims stand rejected.

35 U.S.C. § 112, 2nd Paragraph Rejection - Claims 1-8:

Claims 1-8 remain rejected under 35 U.S.C. § 112, 2nd Paragraph as being indefinite. Specifically, the Examiner has maintained the rejection to using the word "element" in the claims 1, 2 and 4, as set forth in the Examiner's comments.

Although Applicant disagrees with the Examiner and submits that the claims are clear and definite, Applicant has taken the path of least resistance and has amended claims 1, 2 and 4 as shown in the attached Appendix. In view of the attached claim amendments, Applicant respectfully requests the Examiner reconsider and withdraw the above 35 U.S.C. § 112, 2nd paragraph rejection of these claims.

35 U.S.C. § 103(a) Rejection - Claims 1-2, 6 and 7:

Claims 1-2, 6 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,266,882 to Morishita in view of U.S. Patent No. 4,687,983 to Beyn.

As discussed above, claim 1 has been amended as shown in the attached Appendix. Although Applicant submits that this amendment was not necessary, Applicant now notes that

claim states that the resistor is "between a transistor within [the] voltage control apparatus for lighting [the] light emitting element, and [the] input terminal, wherein no other transistor is disposed between [the] transistor and [the] light emitting element." *See* claim 1. Applicant notes that this is clearly not disclosed, taught or suggested in either the Morishita or Beyn references. Applicant submits that Morishita fails to disclose, teach or suggest that the a resistor is placed between a transistor for lighting the light emitting element **6** and the input terminal. *See* Figure 1 of Morishita.

Applicant also notes that this failure in disclosure or teaching of Morishita is not cured by the teachings of the Beyn reference.

Therefore, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 1, and hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of this claim. Further, as claim 6 depends on claim 1, Applicant submits that this claim is also allowable, at least by reason of its dependence.

With regard to claims 2 and 7, Applicant notes that there is no disclosure or teaching within either of the Morishita or Beyn references, that the light emitting element is lighted by a current which is inputted into the input terminal for starting an operation of the voltage control apparatus. *See* claim 2. In fact, the invention in claim 2 is characterized in that it is possible to eliminate an element only for directly lighting the LED (e.g. transistor 144 in Figure 1) by adding a resistor and lighting an LED by a current (a current driving a voltage control unit) flowing into an input terminal from the LED, so that it is possible to simplify a circuit.

In view of the foregoing, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 2, and hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of this claim. Further, as claim 7 depends on claim 2, Applicant submits that this claim is also allowable, at least by reason of its dependence.

35 U.S.C. § 103(a) Rejection - Claims 4 and 8:

Claims 4 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morishita in view of Beyn, in further view of U.S. Patent No. 4,642,548 to Mashino.

As an initial matter, Applicant agrees with the Examiner that neither of the Morishita or Beyn references, disclose teach or suggest a voltage detection circuit, as set forth in claim 4. However, Applicant disagrees with the Examiner that this deficiency is cured by Mashino. First, Applicant notes that Mashino discloses a voltage detecting circuit for controlling on-off of the power transistor depending on the voltage generated by the charging generator, Mashino fails to disclose, teach or suggest a circuit for detecting the voltage of the input terminal and starting the voltage control apparatus, where the circuit is arranged to be shut down after the vehicle generator starts electric power generation operation. *See* claim 4.

Moreover, Applicant notes that even if it were assumed that Mashino cured the deficient teachings of the Morishita and Beyn references (which is not Applicant's position), Applicant further submits that the Examiner has not adequately provided any motivation, teaching or suggestion for combining the teachings of Mashino with the Morishita and Beyn references. Specifically, the Examiner has asserted that one of ordinary skill in the art would have found it

obvious to combine the teachings of Mashino with the above references "for the purpose of providing an inexpensive way of controlling the voltage of a generator and reduce fluctuation of the characteristics of the magnetic circuit of generators as disclosed by Mashino." *See* Office Action, page 5. Applicant submits that this is insufficient to satisfy the Examiner's burden of establishing a *prima facie* case of obviousness with respect to claim 4, for at least two reasons.

First, Applicant notes that at no point does Mashino indicate that the system disclosed therein is "inexpensive" as asserted by the Examiner. Mashino merely asserts that its system is "simple." Col. 1, line 37. This is not necessarily the same as inexpensive. Further, there is no teaching or suggestion in Morishita or Beyn that the systems disclosed therein are overly expensive, thus requiring a cost reducing additional element. In fact, if cost were a concern by one of ordinary skill in the art they would have not been motivated to add anything to the Morishita or Beyn systems because it will result in an increased cost, particularly in view of the fact that there is no suggestion, within either Morishita or Beyn of the need for a system such as that disclosed in Mashino.

Second, as the Examiner has admitted, Mashino teaches to "reduce fluctuation of the characteristics of the magnetic circuit of generators as disclosed by Mashino." *See* Office Action, page 5 (emphasis added). There is no teaching or suggestion that Mashino teaches to reduce fluctuation of the characteristics of the magnetic circuit of generators as disclosed by Morishita or Beyn. Because Mashino is directed to solving this problem in systems like those of Mashino, there is no teaching or suggestion to combine this system with systems such as those in Morishita or Beyn.

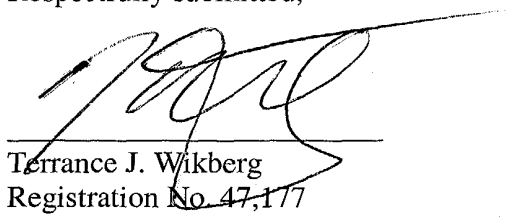
In view of the foregoing, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 4, and hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of this claim. Further, as claim 8 depends on claim 4, Applicant submits that this claim is also allowable, at least by reason of its dependence.

Conclusion:

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Terrance J. Wikberg
Registration No. 47,177

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373
PATENT TRADEMARK OFFICE

Date: March 10, 2003

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Twice Amended) A voltage control apparatus for a vehicle generator comprising:

an input terminal for inputting a voltage of a battery through an ignition switch and a light emitting element connected in series with said ignition switch,

a rotor coil of said vehicle generator started in excitation when a voltage at said input terminal exceeds a predetermined value, and

a resistor for limiting a current flowing through said light emitting element, disposed between ~~an element~~ a transistor within said voltage control apparatus for lighting said light emitting element, and said input terminal,

wherein no other transistor is disposed between said transistor and said light emitting element.

2. (Twice Amended) A voltage control apparatus for a vehicle generator comprising:

an input terminal for inputting a voltage of a battery through an ignition switch and a light emitting element connected in series with said ignition switch, and

a rotor coil of said vehicle generator started in excitation when a voltage at said input terminal exceeds a predetermined value, wherein

said light emitting element is lighted by a current which is inputted into said input terminal for starting an operation of said voltage control apparatus~~, and wherein said~~

~~current is limited by a resistor disposed between said light emitting element and an element within said voltage control apparatus for lighting said light emitting element~~.

4. (Twice Amended) A voltage control apparatus for a vehicle generator comprising:

an input terminal for inputting a voltage of a battery through an ignition switch and a light emitting element connected in series with said ignition switch,

a rotor coil of said vehicle generator started in excitation when a voltage at said input terminal exceeds a predetermined value, and

a circuit for detecting the voltage of said input terminal and starting said voltage control apparatus, said circuit being arranged to be shutdown after said vehicle generator starts electric power generation operation~~, wherein said circuit includes a resistor for limiting current passing through said light emitting element, disposed between an element within said voltage control apparatus for lighting said light emitting element, and said input terminal~~.